ORIGINAL

CH2M HILL
2485 Natomas Park Drive
Suite 600
Sacramento, CA 95833

CH2MHILL

June 9, 2005
184288

Mr. William Pfanner
Siting Project Manager
California Energy Commission
1516 Ninth Street, MS-15
Sacramento, CA 95814-5504

RE: CARE Data Response, Set 3
San Francisco Electric Reliability Project (04-AFC-1)

Dear Bill:

On behalf of the City of San Francisco, please find attached 12 copies and one original of CARE Data Response, Set 3, in response to CARE's Data Requests dated May 30, 2005. We are filing copies of this Data Response both electronically and in hard copy. The public health documents in response to question 3.5-1 are only being sent in hard copy.

Please call me if you have any questions.

Sincerely,

CH2M HILL

John L. Carrier, J.D.
Program Manager

c: Project File
Proof of Service List

SAN FRANCISCO ELECTRIC RELIABILITY PROJECT (04-AFC-1)

DATA RESPONSE, SET 3

(Responses to Data Requests: CARE-3.1 through CARE-3.7)

Submitted by

CITY AND COUNTY OF SAN FRANCISCO

June 9, 2005

2485 Natomas Park Drive, Suite 600
Sacramento, California 95833-2937

SAN FRANCISCO ELECTRIC RELIABILITY PROJECT
(04-AFC-1)
CARE DATA RESPONSES, SET 3

CARE/CCSF 3.1
Reliability

Background
The project as proposed is designed to provide reliability to the San Francisco Peninsula. To determine the availability of the project please answer the following data request

Data Request
3.1-1. Please provide an estimate of how many hours a year that the SFERP would not be available due to maintenance and a sample maintenance schedule that would be anticipated by the applicant.

Response: The industry data for the availability of the GE LM6000PC indicates that the units generally demonstrate an availability of over 98 percent. For the MUNI plant operating up to 4,000 hours per year this would equate to 80 hours of unscheduled maintenance outages.

For sample turbine maintenance schedule see Attachment REL 3.1-1.

Background
At the May 11 2005 site visit the Applicants project manger mentioned that the CAL ISO had release an action plan for the San Francisco Peninsula.

Data Request
3.1-2. Please provide a copy of the CAL ISO Action plan dated November 2004 and any correspondence between ISO and the applicant related to that plan. Including reliability and risk issues associated with the closure of the Hunters Point and Potrero Power Plants and the potential elimination of over 320 MW of in city generation. Please include a discussion of why all four peaking units cannot be sited at the airport in light of the fact that San Francisco Peninsula will rely almost entirely on imported generation with the closure of Potrero and the Hunters Point Power Plant.

Response: The CAISO Action Plan dated November 2004 and related documents are available at the following web links:

http://www.caiso.com/docs/09003a6080/33/a5/09003a608033a510.pdf

http://www.caiso.com/docs/09003a6080/33/ac/09003a608033ac9d.pdf

SAN FRANCISCO ELECTRIC RELIABILITY PROJECT
(04-AFC-1)
CARE DATA RESPONSES, SET 3

http://www.caiso.com/docs/09003a6080/33/a5/09003a608033a50f.pdf

http://www.caiso.com/docs/09003a6080/33/b9/09003a608033b949.pdf

In addition, attached please find the following correspondence exchanged between the CAISO and the City. They are included as Attachment REL 3.1-2.

- September 14, 2004 letter from Mayor Newsom, Supervisor Maxwell and City Attorney Herrera to Marcie Edwards
- October 27, 2004, letter from Marcie Edwards to Mayor Newsom, Supervisor Maxwell and City Attorney Herrera
- November 9, 2004, letter from Mayor Newsom, Supervisor Maxwell and City Attorney Herrera to Marcie Edwards

The City has proposed the installation of the four gas turbines to enable the existing generation at the Hunter's Point and Potrero power plants to be retired. The Hunter's Point and Potrero power plants are interconnected to the 115kV cable network within the City. Since the existing generation in the City supports both the load serving capability of the 115kV network in the City and the major transmission lines serving the City, an initial April 18, 2003, letter from the CAISO to the City on the requirements to close down Hunters Point unit 4 indicated that all four turbines should be interconnected with the 115 kV network within the City. Subsequently, at the City's request, upon further study and with the approval of Jefferson-Martin which will provide for closure of the Hunters Point power plant, the CAISO issued the November 2004 Action Plan which allows for the release of all the units at the Potrero power plant from the RMR agreement with three turbines within the City and one turbine at the San Francisco International Airport and a number of transmission additions all planned to be in service by 2007.

There is no plan endorsed by the CAISO that would allow for the release of Potrero power plant from the RMR agreement without any generation within the City. The October 27, 2004 letter from Marcie Edwards to Mayor Newsom, Supervisor Maxwell and City Attorney Herrera specifically provides that the Action Plan determinations assume "that the City peaking power plants are interconnected at Potrero and licensed to operate 4,000 hours at full output, as indicated by their application for construction. We understand that other sites are being considered for the City peaking power plants. If the City peaking power plant installation location and/or the interconnection point is revised or the operating hours are reduced, further study would be required and could jeopardize our original Action Plant to release existing San Francisco generation from the RMR Agreements."

Attachment REL 3.1-1

City of San Francisco Electric Reliability Project
LM6000 PC Sprint Maintenance Services

Operating Profile

The current operating profile, as known today, will be up to 4,000 hours per year. When requested, the plant will operate up to five days per week up to 12 hours per day or more days for longer periods as required.

Equipment

The power plant equipment is described below.

- *One GEAE-supplied LM6000 PC Sprint Gas Turbine Genset Package, operating on gas fuel, base-loaded (or less).*

Planned Maintenance Services

Maintenance on the LM6000PC SPRINT is condition based. Inspection scope and intervals identified are approximate and are dependent upon certain assumptions with respect to the operation of the Covered Equipment.

Planned Maintenance work will consist of:

- Borescope & Package Inspections – At 4,000 hours per year, inspections would be performed at least annually. Each Borescope & Package Inspection will consist of a borescope examination of the engine, and visual inspection of specified package components. In addition, each Borescope & Package Inspection will include a validation/calibration of control and instruments systems, and a routine generator inspection. Approximate downtime of 2 days at 12 hours per day per engine.
- Hot Section & Combustor Rotable Exchange - Performed in accordance with the operation and condition of the Covered Equipment during a scheduled outage; expected to be after approximately each 25,000 fired hours of base load gas fuel operation. The existing hot section and combustor modules will be removed, and refurbished replacement hot section and combustor modules will be installed at site. Approximate downtime of 4-5 days per engine is needed to complete this effort
- Major Overhaul - Performed in accordance with the operation and condition of the engine during a scheduled outage; expected to be at approximately 50,000 fired hours of base load gas fuel operation. The engine will be removed from the plant site and taken to an overhaul depot for performance of the overhaul work. Key features of this overhaul are: (a) complete tear down and inspection of engine, (b) rebuilding with new or serviceable refurbished parts as required, and (c) demonstration testing of functionality and performance in the test cell. A lease engine can be obtained for this event and downtime is approximately 2-3 days per engine to remove the engine.
- On-Condition Sprint related maintenance – HPC blades replacement is based on condition and occurs approximately after 16,000 hours of HP SPRINT or 25,000 hours of Total SPRINT operation. Downtime is approximately 2-4 days, depending on workscope.
- VSV Bushing replacement – Bushing replacement is needed approximately every 12,500 hours of operation. Downtime is approximately 1-2 days.

Based on the planned operating profile of the engine, it is expected that all the planned maintenance can be completed maintaining the expected engine availability due to the seasonal and weekly demand for operation.

ATTACHMENT REL 3.1-2

CALIFORNIA ISO

California Independent System Operator

October 27, 2004

Via Facsimile and US Mail Delivery

The Honorable Mayor Gavin Newsom
The Honorable Supervisor Sophenia Maxwell
The Honorable City Attorney Dennis Herrera
City and County of San Francisco
City Hall
One Carlton B. Goodlett Place
San Francisco, CA 94102

RE: September 14, 2004 Letter to Marcie Edwards, California ISO Interim CEO

Thank you for your expression of appreciation for the efforts of the California Independent System Operator (ISO) to provide an Action Plan that will release all existing in-City generation from their Reliability Must Run (RMR) Agreements. I am pleased you find the Action Plan a significant step toward achieving the mutual interests of the City of San Francisco (City), its constituents, and the California ISO. I appreciate the leadership and support you and your staff has shown for new generation and transmission infrastructure in San Francisco. As such, the ISO views the City peaking power plants as an integral part of the Action Plan and continued reliability of the San Francisco power supply.

This letter is in response to the subject letter and comments made by Deputy City Attorney Theresa Mueller during the September 15, 2004 ISO Board of Governors meeting. In addition to answering your questions, we have provided our assessment of some of the areas of risk that load serving entities and policy makers should consider when planning for their energy future. I expect that you will find this response helpful as you balance the myriad interests of San Francisco.

Potrero 3 Retrofit: The ISO remains prepared to release Hunters Point 1 & 4 from the RMR Agreement once Jefferson-Martin and the eight previously defined transmission projects are in place. As we have described in all of our planning documents on this issue, Potrero 3 must be available to provide energy in order to allow for the release of Hunters Point generation. Potrero Unit 3 can operate in two ways. The first is with the environmental retrofit that will allow the unit to operate cleaner, more reliably, and produce more energy. However, the second way is without the retrofit, which will allow the unit to operate, but at a lower output level, greater pollution impact to the Greater Bay Area, higher cost to PG&E ratepayers, and an overall lower level of reliability to the San Francisco Peninsula Area. Due to the retrofit of Potrero 3 being in jeopardy, we have initiated steps to implement the non-retrofit alternative. This being said, we continue to prefer the retrofit of Potrero 3 because the non-retrofit alternative creates a greater zone of risk to the reliability of the area. The energy represented between the two alternatives is approximately 70 MWs that allows for the local area to be operated above the reliability requirements. This enhances the ability to reliably serve load and provides greater operational flexibility.

151 Blue Ravine Road Folsom, California 95630 Telephone: 916 351-4400

Release of Potrero 3 from RMR Agreement: As requested and then studied, the Action Plan has been revised to allow the release of Potrero 3 power plant before the release of Potrero 4, 5, and 6 from the RMR Agreement. This determination assumes that the City peaking power plants are interconnected at Potrero and licensed to operate 4,000 hours at full output, as indicated by their application for construction. We understand that other sites are being considered for the City peaking power plants. If the City peaking power plant installation location and/or the interconnection point is revised or the operating hours are reduced, further study would be required and could jeopardize our original Action Plan to release existing San Francisco generation from the RMR Agreements. Attached is the table originally presented to the ISO Board of Governors revised to show the change in sequence of release from the RMR Agreement of Potrero Unit 3 with Potrero Units 4, 5, and 6 (Attachment 1). As promised, the forecasted load growth and the capability of the infrastructure assumed in the Action Plan are attached for your reference (Attachment 2).

As much as the Action Plan is intended to provide a bright line, it must allow for adjustments if the carefully sequenced projects slip or if we find that the load growth exceeds both those assumed in the planning analyses and the capability of the infrastructure itself. The Action Plan was provided on an expedited basis and does not benefit from the customary peer review such significant system changes typically receive. We are confident that the Action Plan complies with the reliability standards and will continue to analyze system conditions to verify the sustained compliance. This continuous monitoring of system conditions is also customary and will help avoid any surprises or unanticipated circumstances to occur that would jeopardize the Action Plan.

Risk Assessment: As we all understand, the consideration of risk is an integral component for policy makers as they make determinations affecting the energy future of a critical load center such as San Francisco. The ISO remains committed to the Action Plan; however, the implementation of this Plan results in a fundamental shift in how load in San Francisco will be served in the future and is not without some risk. Per the Action Plan, there will be a net removal of over 300 MW of generation in this local area. Importing remote generation into San Francisco through the underlying transmission infrastructure will make up this difference. Although this meets the required reliability standards, it does decrease the overall flexibility that the operators have at their disposal to manage unforeseen emergencies (Attachment 3).

In closing, we consider this Action Plan as one step in achieving the broader and long-term energy plan goals of San Francisco. The ISO commits to work with the City, PG&E, and all interested stakeholders as you identify future infrastructure projects that will be required to meet the electric demands of the City's businesses and families.

Sincerely,

Marcie L. Edwards
Interim Chief Executive Officer

ATTACHMENT 1 – Revised Action Plan
ATTACHMENT 2 – Load Forecast/Load Serving Capability Chart
ATTACHMENT 3 – Risk Assessment

Cc: Michael Kahn
Mike Florio
Tim Gage
Ed Cazalet
Ken Wiseman
Randy Abernathy
Charles Robinson
Jim Detmers
Armando Perez
Gary DeShazo
Julietta Gill
Joseph Desmond

Attachment 1

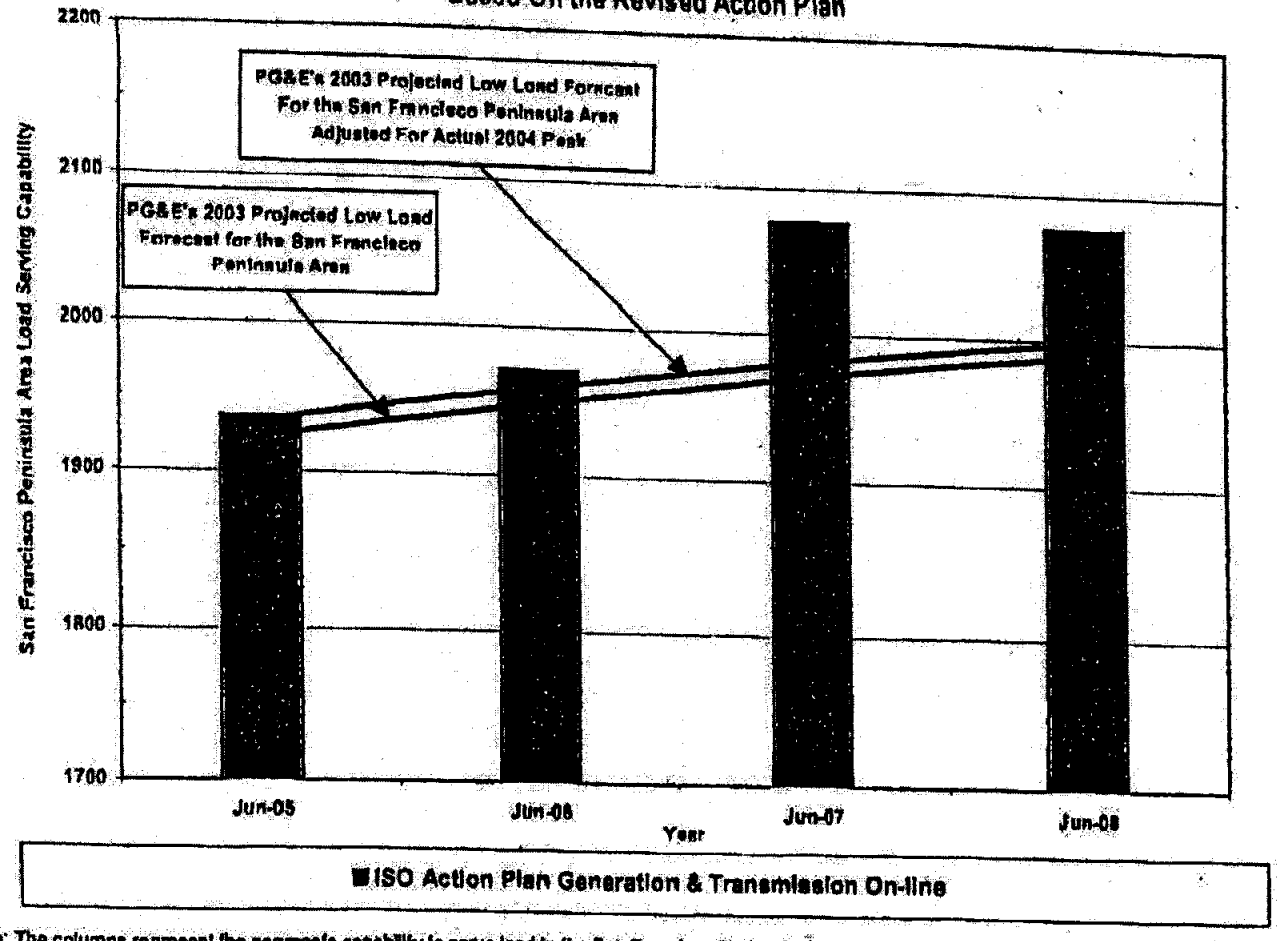
PG&E Transmission Projects, City Peaking Power Plants and Mirant Retrofit of Potrero 3 Necessary To Meet NERC/WECC/CAISO Planning Requirements

	Project	Estimated Completion Date/Status	Issue	Resolution of Issue
Release Hunters Point Units 2 & 3 From Their RMR Agreements				
1	Potrero Static VAR Compensator	December 2004, Under Construction	NERC/WECC/CAISO Planning Standards	This project allows ISO/PG&E to meet planning requirements with Hunters Point Power Plant Units 2 and 3 released from their RMR Agreement
Release Hunters Point Units 1 & 4 From Their RMR Agreements				
2	San Mateo-Martin No. 4 Line Voltage Conversion	Completed	NERC/WECC/CAISO Planning Standards	This project in combination with the other listed projects allows ISO/PG&E to meet planning requirements with Hunters Point Power Plant Units 1 and 4 released from their RMR Agreement
3	Ravenswood 2nd 230/115 kV Transformer Project	Completed	NERC/WECC/CAISO Planning Standards	This project in combination with the other listed projects allows ISO/PG&E to meet planning requirements with Hunters Point Power Plant Units 1 and 4 released from their RMR Agreement
4	San Francisco Internal Cable Higher Emergency Ratings	Completed; To Be Used Upon Completion of the Jefferson-Martin 230kV Project	NERC/WECC/CAISO Planning Standards	These ratings are an interim solution that in combination with the other listed projects allows PG&E to meet planning requirements with Hunters Point Power Plant Units 1 and 4 released from their RMR Agreements. In 2007, a third Martin-Hunters Point 115 kV cable will replace the emergency ratings.
5	Tesla-Newark No. 2 230 kV Line Reconductoring	May 2005, Construction In Progress	RMR Criteria	This project in combination with the other listed projects allows ISO/PG&E to meet planning requirements with Hunters Point Power Plant Units 1 and 4 released from their RMR Agreement
6	Ravenswood-Ames 115 kV Lines Reinforcement	May 2005, Engineering In Progress	RMR Criteria	This project in combination with the other listed projects allows ISO/PG&E to meet planning requirements with Hunters Point Power Plant Units 1 and 4 released from their RMR Agreement
7	San Mateo 230 kV Bus Insulator Replacement	May 2005, Engineering In Progress	Operations Requirement During San Mateo Bus Wash	Eliminate bus wash at San Mateo 230 kV bus will reduce the 400 MW generation operational requirement down to less than 200 MW
8	Potrero-Hunters Point (AP-1) 115 kV Cable	December 2005 Pending CPUC	NERC/WECC/CAISO Planning Standards	This project in combination with the other listed projects allows ISO/PG&E to meet planning requirements with Hunters Point Power

		Permit Approval		Plant Units 1 and 4 released from their RMR Agreement
9	Jefferson-Martin 230 kV Line	December 2005 to March 2006	NERC/WECC/CAISO Planning Standards	This project in combination with the other listed projects allows ISO/PG&E to meet planning requirements with Hunters Point Power Plant Units 1 and 4 released from their RMR Agreement
10	Potrero 3 SCR retrofit	Permit Authority Under Appeal	NERC/WECC/CAISO Planning Standards	This project ensures the availability of Potrero 3 at full capacity thereby reducing overall Greater Bay Area RMR requirements. This project or the reduced capacity available without the retrofit in combination with the other listed projects allows ISO/PG&E to meet planning requirements with Hunters Point Power Plant Units 1 and 4 released from their RMR Agreements
Release Potrero Unit 3 From Its RMR Agreement				
11	San Francisco Electric Reliability Project and San Francisco Airport Electric Reliability Plant	December 2006	NERC/WECC/CAISO Planning Standards	These projects will allow ISO/PG&E to meet planning requirements with Potrero 4, 5, and 6 released from their RMR Agreements
Release Potrero Units 4, 5, & 6 From Their RMR Agreements (assumes previous completion of Peaking Power Plants by the City)				
12	Upgrade the Newark-Dumbarton 115kV line	May 2006	NERC/WECC/CAISO Planning Standards	This upgrade is needed in combination with the other listed mitigations to allow ISO/PG&E to meet planning requirements with Potrero Unit 3 released from its RMR Agreement
13	Upgrade the Bair-Belmont 115kV Line	Under Evaluation By PG&E, likely to be scheduled for 2007	NERC/WECC/CAISO Planning Standards	This upgrade is needed in combination with the other listed mitigations to allow ISO/PG&E to meet planning requirements with Potrero Unit 3 released from its RMR Agreement
14	Upgrade the Metcalf-Hicks & Metcalf-Vasona 230 kV lines	Under Evaluation By PG&E, likely to be scheduled for 2007	NERC/WECC/CAISO Planning Standards	This upgrade is needed in combination with the other listed mitigations to allow ISO/PG&E to meet planning requirements with Potrero Unit 3 released from its RMR Agreement
15	Add voltage support at Ravenswood substation	Under Evaluation By PG&E, likely to be scheduled for 2007	NERC/WECC/CAISO Planning Standards	This upgrade is needed in combination with the other listed mitigations to allow ISO/PG&E to meet planning requirements with Potrero Unit 3 released from its RMR Agreement

Attachment 2

San Francisco Peninsula Area Load Serving Capability
Based On the Revised Action Plan



Note: The columns represent the aggregate capability to serve load in the San Francisco Peninsula Area
ISO Grid Planning 10/18/2004

Attachment 3

Zones of discretionary risk associated with energy planning for the San Francisco Peninsula

Via the Action Plan, the ISO has outlined a sequence of transmission and generation additions that will permit the release of Hunters Point and Potrero Generation from their RMR Agreements. The Action Plan meets all established reliability planning criteria using the best information currently available.

However, it should be noted that the Action Plan meets only the *minimum* standards, and is therefore not without some risk. Therefore, in order to assist San Francisco in its overall long term planning effort, the ISO has attempted to quantify those zones of risk that San Francisco should consider when planning for their energy future.

The following are items to consider in assessing the level of acceptable risk:

- The original design and subsequent configuration of the power system in San Francisco was based on more local generation versus imported generation. The Action Plan moves away from the original design in the area, and therefore creates greater dependency on imported energy. This increased dependency translates into understanding that a loss of a transmission circuit(s) supplying the SF area may result in customer power outages in situations wherein the remaining amount of local generation may be insufficient to eliminate. In short, the customer demand on the Peninsula at a peak load period is estimated at 1,970 MW in 2007. Local generation, assuming full use of the planned City peaking power plants, without both Hunters Point and Potrero, and assuming all the transmission enhancements outlined in the action plan are completed, will be approximately 192 MW. The difference (nearly 1,800 MW) is the amount upon which the peninsula will be dependent upon the transmission system. Risks are potentially small that multiple transmission outages will occur during peak periods, but it should be understood that choosing to minimize the amount of local generation thereby minimizes the choices available during emergency conditions such as loss of a transmission circuit(s).

- The reality of all generation is that at one point or another the units will trip off-line or break down. Again, without having more local generation immediately available, dependency on imports is increased. In other words, while the minimum planning criteria will have been met, the loss of the associated operational flexibility carries risk under peak load/multiple equipment outage scenarios.

- Greater dependency on external generation as opposed to local generation also carries with it a greater risk in areas that are prone to natural disasters. Natural disasters such as earthquakes, fires, and hurricanes play havoc with power lines. Much like bridges, transmission lines can fail in natural disasters, thereby isolating customers from their generation when that generation is not local.

- While every effort has been made to model San Francisco's projected energy requirements, there remains a number of potential projects that may notably increase the City's energy needs over and above that currently forecast. An example is the proposed cruise ship terminal where the ships would be required to interconnect with the Control Grid to operate while in port instead of relying on their 10 MW diesel generators that would pollute the area. Each 10 MW ship would consume the margin that was allowed in the Action Plan for one year's load growth. Activities such as this will require more generation to operate, and hasten the need for more projects to serve this volume of load.

- There are load-dropping schemes in place to assure compliance with the Reliability Criteria for critical double contingencies. Reducing San Francisco generation, as outlined in the Action Plan, may result in the need to increase the amount of load that is shed in the San Francisco Peninsula Area to mitigate line overloads for these critical double contingencies.

The ISO supports the interests of both the City and the community to allow for the existing generation to be released once the elements of the Action Plan are in place, but we caution the City that there are associated risks in operating a system at the minimum reliability required. The ISO remains supportive of the new City peaking power plant project and encourages the City to move forward expeditiously with the siting. You will therefore see that the City peaking power plant project is an integral part of the Action Plan and the continued reliability of the San Francisco power supply. We strongly encourage the City to foster new generation and transmission opportunities to further enhance both their ability to meet projected customer demand as well as provide critical operational flexibility in emergencies.

CITY AND COUNTY OF SAN FRANCISCO

September 14, 2004

Marcie Edwards
Interim CEO
California Independent System Operator
151 Blue Ravine Road
Folsom, CA 95630

Re: Action Plan for San Francisco

Dear Ms. Edwards:

This letter responds to your September 10, 2004 report to the California Independent System Operator (CA ISO) Board of Governors regarding an Action Plan for San Francisco, Options and Risks (the Action Plan). To begin, the City would like to thank the CA ISO and its staff for the dedicated, cooperative and intense effort to produce an historic and specific Action Plan to close down all existing in-City generation. Developing such a plan has been a City and community objective for several years. The City appreciates the substantial effort expended by the CA ISO to work with the City and community to develop this plan.

By providing in writing and in detail the options available to close down existing in-City generation, the CA ISO has created the basis to continue the discussions in a concrete, constructive and responsible manner. The City is anxious to continue to work cooperatively with the CA ISO to further understand and refine the details of the plan and the various available options.

Without in any way detracting from the significant achievement represented by the Action Plan, but rather in the spirit of moving on immediately to the next stage of the discussion, the City offers the following observations:

- The City reads the Action Plan to provide for closure of the Hunters Point Power Plant (Units 4 and 1) once Jefferson-Martin and eight previously defined transmission projects are in place, irrespective of the status of the retrofit of Potrero Unit 3. The City considers that the closure of Hunters Point Power Plant and the retrofit of Potrero Unit 3 are in fact separate and distinct objectives that cannot be conditioned the one upon the other. The City would welcome a clarification from the CA ISO that it has correctly interpreted the Action Plan.

- The Action Plan provides that the City's combustion turbine projects would provide for closure of Potrero Units 4, 5, and 6 and support the closure of Potrero Unit 3 with the completion of four additional transmission projects. The City believes that the order must be reversed. For the reasons listed below, the City considers that its proposal to site three combustion turbines in the City and one at the San Francisco International Airport should provide for immediate closure of Potrero Unit 3 and the closure of Units 4, 5, and 6 on completion of the four transmission projects. The Action Plan itself provides that "the retirement of any existing Potrero generation requires an equivalent offset of new transmission and/or generation infrastructure."

(Action Plan at 7.) The City's combustion turbines are not only equivalent to Potrero Unit 3, but are in fact superior. The City's rationale for this conclusion is as follows:

- In terms of MWs, the combustion turbines provide a total of 193 MWs as compared to 207 MWs from Potrero Unit 3. A difference of 14 MWs is insufficient to render the combustion turbines ineligible to replace Potrero Unit 3.

- Comparing capability and the permitted running hours of the City's combustion turbines against the capability and the service hours for Potrero Unit 3 under the Must Run Service Agreement, the combustion turbines represent only 9% less MWhs than Potrero Unit 3. However, unlike Potrero Unit 3, the start time for the combustion turbines is between 10 and 30 minutes. Thus, it is not necessary to run the turbines during low load hours purely to have them available to meet peak load. This flexibility should compensate amply for the 9% reduction in MWhs.

- Potrero Unit 3, an old unit, has had a forced outage rate twice as high as the average outage rate of units in the CA ISO system. In contrast, the City's combustion turbine projects involve new aeroderivative combustion turbine technology that has a very high availability record.

- The City's combustion turbines provide a far more valuable contribution towards meeting planning criteria than does Potrero Unit 3. With Hunters Point Unit 4 closed, Potrero Unit 3 would be the largest single generator in the City/Peninsula and hence becomes the G-1 contingency unit. Thus, to assess compliance with planning criteria, the entire 207 MW of Potrero Unit 3 must be assumed to be off line. In contrast, with Potrero Unit 3 replaced by the City's combustion turbines, a 48 MW combustion turbine becomes the G-1 contingency unit, and to assess compliance with planning criteria, only 48 MWs need be assumed to be offline.

The City looks forward to following up with the CA ISO regarding these considerations. Once again, the City very much appreciates the CA ISO's outstanding cooperation with the City and the community to identify and move forward on a robust, environmentally sound, and economic plan to address critical environmental justice issues through the closure of the existing in-City generation, while maintaining and improving reliability in San Francisco.

Sincerely,

Mayor Gavin Newsom

Supervisor Sophenia Maxwell

City Attorney Dennis Herrera

cc: Michael Kahn
Michael Florio
Timothy Gage
Carl Guardino
Randall Abernathy
Charles Robinson
Jim Detmers
Armando Perez
Gary Deshazo
Julietta Gill
Joseph Desmond

CITY AND COUNTY OF SAN FRANCISCO

November 9, 2004

Marcie Edwards
Interim CEO
California Independent System Operator
151 Blue Ravine Road
Folsom, CA 95630

Re: Revised Action Plan for San Francisco

Dear Ms. Edwards:

This letter addresses your November 5, 2004, memo to the Board of Governors seeking Board endorsement of the Revised Action Plan for San Francisco. We thank you, again, for the diligent work of ISO staff and the attention of ISO officers and Board members to the energy and environmental justice issues facing San Francisco. We especially appreciate your openness to the iterative process that has developed around these issues. We believe the Revised Action Plan provides a sound framework for our ongoing efforts to close the old and dirty existing power plants and improve electric reliability in San Francisco. We join you in asking the Board of Governors to approve this plan.

The Revised Action Plan and your letter include a longer discussion of caveats to implementation of the plan and a new attachment on the risk to electric reliability under the plan. We want to briefly address both of these issues. We recognize even without the added caveats that any plan of this kind is based on assumptions that are subject to change. The challenge for the ISO and the City in this circumstance is to nonetheless find a way to implement the plan for closing existing power plants. Just in the time since the release of the original Action Plan, the City and community have heard that PG&E has modified the completion date for the Jefferson-Martin project, thus potentially delaying the release of RMR contracts for Hunters Point 1 and 4 beyond the December 2005—March 2006 timeframe set forth in the plan. We seek your assistance in ensuring the closure of Hunters Point on the schedule identified in the plan, if not sooner.

We appreciate the ISO's concern about the risk to electric reliability in San Francisco. The City shares that concern and has actively advocated for a more reliable electric system, particularly since December 8, 1998, when a large portion of the City was without electricity for up to eight hours due to a transmission failure. The City believes that the combination of new, flexible combustion turbines and substantial transmission upgrades by PG&E will provide increased reliability to San Francisco over the current system, which relies on the old, unreliable generation at Hunters Point and Potrero to meet minimum reliability standards. In addition to the projects outlined in the plan, the City's own initiatives in energy efficiency and renewable energy resources will further improve electric reliability.

Once again, we appreciate the ISO's collaborative and productive approach to finding solutions that address electric reliability in a way that is politically, environmentally and

economically sustainable. We look forward to working with the ISO to implement the Revised Action Plan.

Sincerely,

Mayor Gavin Newsom

Supervisor Sophenia Maxwell

City Attorney Dennis Herrera

Cc: Michael Kahn
Michael Florio
Timothy Gage
Carl Guardino
Randall Abernathy
Charles Robinson
Jim Detmers
Armando Perez
Gary DeShazo
Julietta Gill
Joseph Desmond

SAN FRANCISCO ELECTRIC RELIABILITY PROJECT
(04-AFC-1)
CARE DATA RESPONSES, SET 3

CARE/CCSF 3.2
Alternatives

Background
The project as proposed will utilize four turbines in simple cycle mode. The cost to produce a kilowatt of electricity in simple cycle mode is substantially greater that if the project were to operate one or more of the turbines in combined cycle.

Data Request
3.2-1. Please provide an estimate of the average cost to generate a kilowatt of electricity in simple cycle for the SFERP compared to the cost to provide a kilowatt of electricity with the project in combined cycle configuration.

Response: Under projected natural gas costs, at the 4,000 permitted hours of operation per year per combustion turbine, the three simple-cycle unit installation has a production cost of $0.0916/kW-hr and the three-unit combined-cycle installation has a production cost of $0.0853/kW-hr. As noted in Data Response 179, the City expects that the combustion turbines will be required to operate less than the Hunters Point and Potrero power plants to meet local area reliability needs because of the substantial improvements that have been made recently to the transmission system in the Greater Bay Area. To the extent that the combustion turbines operate less than the 4000 permitted hours, the difference in production cost between simple and combined cycle narrows as the higher capital cost of the combined cycle is spread over fewer operating hours.

Background
The project proposes to use treated wastewater for cooling in an area that has sensitive receptors in close proximity including a large majority of low income people of color. Wastewater in cooling towers has the potential for legionella formation.

Data Request
3.2-2. Please provide an estimate of the cost of dry cooling for this project compared to the current proposed cooling method.

Response: Dry cooling systems are not practical for the types of cooling loads served by the small cooling towers required for simple-cycle units. For example, the Otay Mesa facility, which uses dry cooling for the combined-cycle plant, also uses small cooling towers for auxiliary loads in the same manner proposed for SFERP. The City is not

aware of any simple cycle projects that use dry cooling for the small cooling loads associated with this type of plant.

With regard to the potential formation of Legionella in cooling towers, the California Energy Commission (CEC) has developed a standard Condition of Certification requiring preparation and implementation of a Cooling Water Management Plan. The plan must be consistent with CEC Staff's "Cooling Water Management Program Guidelines" or with the Cooling Technology Institute's "Best Practices for Control of Legionella" guidelines. Development of the plan consistent with these guidelines ensures that normal maintenance of the cooling system would include measures to control bacterial growth to reduce to insignificance the opportunity for growth and dispersion of Legionella The plan is typically required prior to the start of cooling tower operation.

Notwithstanding and without waiving the above, the City will provide an estimate of cost of dry cooling within the 30 days allowed for discovery responses.

CARE/CCSF 3.3
Air Quality

Background
At the informational site visit on May 11, 2005 the project manager for the applicant mentioned local monitoring stations that had been operating in the community for some time.

Data Request

3.3-1. Please provide the monitoring results including PM 2.5 and PM-10 results from the Department of Environment's Bay CAMP monitoring station and since it began operation and any other community modeling results.

Response: The results from the Bay CAMP monitoring station are available as S.F. - Hunters Pt. at the following web link: http://gate1.baaqmd.gov/aqmet/aq.aspx

3.3-2. Please provide the location and quantity of workers who work along the fence lines of the proposed site including the maintenance center next to the project site.

Response: The proposed MUNI Maintenance Operations Center will be located to the west of the project site. Construction has not begun on the MUNI site and the general contractor has not been selected. Based upon the current construction schedule, MUNI anticipates that there will be an average of 125-150 people working on construction of the maintenance facility between August 2005 and April 2008, with a peak of about 200 workers during the critical months of construction. Under the current schedule, the MUNI Maintenance Operations Center is scheduled to be in operation in June 2008. At

this time, MUNI does not have a staffing plan for the facility. However, based on current information, the area near the power plant is planned to be used for switching tracks with trains and rails for testing and will not be heavily staffed.

3.3-3. Please provide any source test results for LM-6000 turbines that demonstrate compliance with a 2.5 pound per hour PM-10 limit for each turbine and an average PM-10 rate for each turbine.

Response: The City is not proposing a PM_{10} emission limit of 2.5 pounds per hour for each turbine. Rather, the City is proposing a PM_{10} emission limit of 3.0 pounds per hour for each turbine; that level is based on vendor guarantee levels, and not source test results. It is the City's understanding that LM-6000 projects that have been licensed by the California Energy Commission are required to provide the results of source tests to the Commission on a routine basis. However, the City does not have such a collection of source test reports.

CARE/CCSF 3.4
Purpose and Need

Background
Section 3.4.2 of Supplement A states that the reduction in NOx will support environmental justice.

Data Request
3.4-1. Please explain how the reduction of NOx a regional pollutant will support environmental justice and provide evidence of any NO_2 or ozone exceedances in the project area that supports this claim.

Response: The City is addressing environmental justice concerns through a variety of mechanisms. These include complying with Bay Area Air Quality Management District (BAAQMD) requirements to provide emission reduction credits using local credits and offsetting NOx emissions at a 1.19 to 1 basis rather than the 1.15 to 1 basis required by the BAAQMD; designing the project to enable the retirement of the older Hunters Point and Potrero facilities; mitigating the project's PM_{10} air quality impacts through a process that reflects community input; and developing a community benefits package that focuses on air quality and public health issues.

The provision of NOx emission reduction credits is required by BAAQMD regulations, and is only one element of the City's attention to environmental justice concerns. The City specifically focused on obtaining these emission reduction credits from a local source (i.e., the Potrero power plant).

SAN FRANCISCO ELECTRIC RELIABILITY PROJECT
(04-AFC-1)
CARE DATA RESPONSES, SET 3

Background
Supplement A describes one of the project objectives as the closure of the Potrero Power Plant owned by Mirant.

3.4-2. Please provide evidence of any agreement between Mirant and CCSF that would support the conclusion that Mirant will no longer run the Potrero Power Plant when released from its RMR agreement with CAL ISO.

Response: The City does not have an agreement with Mirant which provides that Mirant will no longer operate the Potrero power plant when the plant is released from its RMR agreement with the CAISO. Rather, release from the RMR agreement will eliminate a significant source of revenue for continued operation of the Potrero Power plant and will allow Mirant Potrero, LLC to shut down the units.

Background
Page 3-10 of supplement A states, "**The SFERP Will Support Affordable Electric Bills**"

Data Request
3.4-3. Please provide a comparison of the average cost of a kilowatt hour of electricity produced by the SFERP compared to the average cost of all generation provided to the SF Peninsula to provide a more valid comparison of how the SFERP will lower the average cost of power to SF residents and in particular the low income residents of Hunters Point and Potrero neighborhoods.

Response: Section 3.4.5 (on page 3-10 of supplement A) explains that the SFERP could reduce costs from the operation of existing in-City generation because it is comprised of small flexible quick start units. Thus, the SFERP will eliminate the need to operate Potrero Unit 3 around the clock merely to ensure that a reliability unit is available to meet needs during peak hours.

A comparison of the average cost of a kilowatt hour of electricity produced by the SFERP and the "average cost of all generation provided to the SF Peninsula" does not provide an appropriate comparison of the economic benefits of the SFERP. The SFERP is intended to operate primarily as a peaking plant and to assure reliability. Peaking plants are typically the most expensive fossil generation on a $/kwh basis and the least expensive on a $/kw basis. They play a key role as part of a mix of resources to reduce the total cost of power.

The response to Data Request 3.2.1, above, sets forth some estimates of the cost to produce a kilowatt-hour of electricity from the SFERP. There is no commonly accepted estimate of "the average cost of all generation provided to the SF Peninsula" and in fact,

much of the relevant information for such an estimate is possessed by Pacific Gas and Electric Company and treated as highly confidential information (for example in the context of the ongoing procurement proceedings before the California Public Utilities Commission).

Background
The SF Energy Action plan proposes to shut down the Hunters Point and Potrero Power Plants thereby reducing in city generation by over 300 Megawatts.

Data Request
3.4-4. Please describe how this plan will improve reliability since the majority of electricity will have to be imported since most outages in San Francisco have been related to substations and transmission lines.

Response: The City assumes that this request is asking about the Revised Action Plan for San Francisco developed by CAISO. The City did not develop the Revised Action Plan for San Francisco. The City's views on why the SFERP will improve reliability are set forth in section 3.4.3 of Supplement A. That section includes a description of a City evaluation of the relative reliability of existing in-City generation as compared to the average reliability of other generating units within the CAISO system. The evaluation showed that existing City/peninsula units, on average, are more than twice as likely to be unavailable to serve load than the units reported for the CAISO grid. In contrast, the SFERP involves new aeroderivateive combustion turbine technology which has a very high availability record. Replacing old generation that is more than twice as likely to be unavailable than the average, with new highly reliable technology will substantially enhance San Francisco;/ peninsula electrical reliability.

3.4-5. Please provide the number of outages in San Francisco that have been initiated by transmission lines compared to the number of outages that have been caused by the failure of the Potrero 3 unit over the life of the Potrero 3 unit. . Please provide the risk assessment and the Cal ISO risk evaluation from the October 27, 2004 CAL ISO letter to CCSF.

Response: The City does not possess a record of all the outages in San Francisco and their cause over the life of the Potrero unit 3. The City is providing the October 27, 2004 letter from the CAISO to the City and all attachments in response to question 3.1-2 (see Attachment REL 3.1-2). This is the extent of the documentation on risk assessment provided by the CAISO to the City.

SAN FRANCISCO ELECTRIC RELIABILITY PROJECT
(04-AFC-1)
CARE DATA RESPONSES, SET 3

CARE/CCSF 3.5
Public Health

3.5-1. Please provide all health studies that have been conducted in the Bayview Hunters Point and Potrero neighborhoods that the Applicant has sponsored or is aware of.

Response: The City has undertaken a search of its Public Health files and is providing hard copies the following reports by U.S. mail:

- Comparison of Incidence of Cancer in Selected Sites Between Bayview/Hunters Point and San Francisco and the Bay Area
- Community Health Profile (Draft dated July 19, 1997)
- Cancer Incidence Among Residents of the Bayview-Hunters Point Neighborhood, San Francisco 1993-1995 (dated January 1998)
- Asthma in San Francisco (dated November 2000)
- The 1999 Community Survey
- At A Glance: Bayview Hunter's Point Neighborhood Issues
- Report of the 2001-2002 San Francisco Civil Grand Jury (dated June 2002)
- Response to 2001-2002 Civil Grand Jury Report (letter to Judge Alfred Chiantelli, undated)
- Department of Public Health: Occupational & Environmental Health Sections, Analysis of Hospital Admissions Data During the Hunters Point Shipyard Fire of August 2000 (dated January 23, 2003).

CARE/CCSF 3.6
Noise

3.6-1. Please provide a noise contour map from the operation of the SFERP and any associated project components that will generate noise including compressors, pumps, etc.

Response: A noise contour map showing the modeled noise levels is provided as Figure 3.6-1.

3.6-2. Please provide the number and location of buildings which contain mixed uses of residential and industrial or office in the project area and estimated noise impacts from the SFERP

Response: The buildings shown in Supplement A as R1 through R4 and M1 (and also shown in Figure 3.6-1) are the closest mixed use (i.e., residential/office) buildings to the project. Data Response Set 3A, filed on June 3, 2005, provides pictures of those facilities, a description of the number of units, and which are mixed use and which are residential (see Data Response #181). The estimated noise level from the project at those facilities is provided in Table 3.6-2.

TABLE 3.6-2
Plant Noise Levels at Selected Locations

Location	Modeled Noise Level (dBA)
ML1	51
R1	54
R2	53
R3	52
R4	52

CARE/CCSF 3.7
Biology

3.7-1. Please estimate the percentage of Nitrogen deposition that would be reduced should the applicant employ the SCONOX Technology and eliminate the use of Ammonia

Response: In theory, if SCONOx technology was able to perform as well as the City's proposed Selective Catalytic Reduction technology, it would reduce total nitrogen emissions, and hence nitrogen deposition rates, by approximately 73 percent:

NOx emissions (as nitrogen): 39.8 * 14/46 = 12.11 tons per year

NH3 emissions (as nitrogen): 39.2 * 14/17 = 32.32 tons per year

Total nitrogen emissions: 12.11 + 32.32 = 44.43 tons pear year

Nitrogen from NH3: 73%

However, as set forth on page 9-19 of Supplement A, "[t]here are serious questions about the probability of a successful commercial demonstration and the commercial

availability of the SCONOx technology for application to SFERP, as well as the levels of emission control that can be consistently achieved. Therefore, this technology is not considered feasible for the SFERP." To the extent that SCONOx technology failed to meet the required NOx limits on a consistent basis, nitrogen deposition levels would be correspondingly increased, as would direct NO_2 impacts.

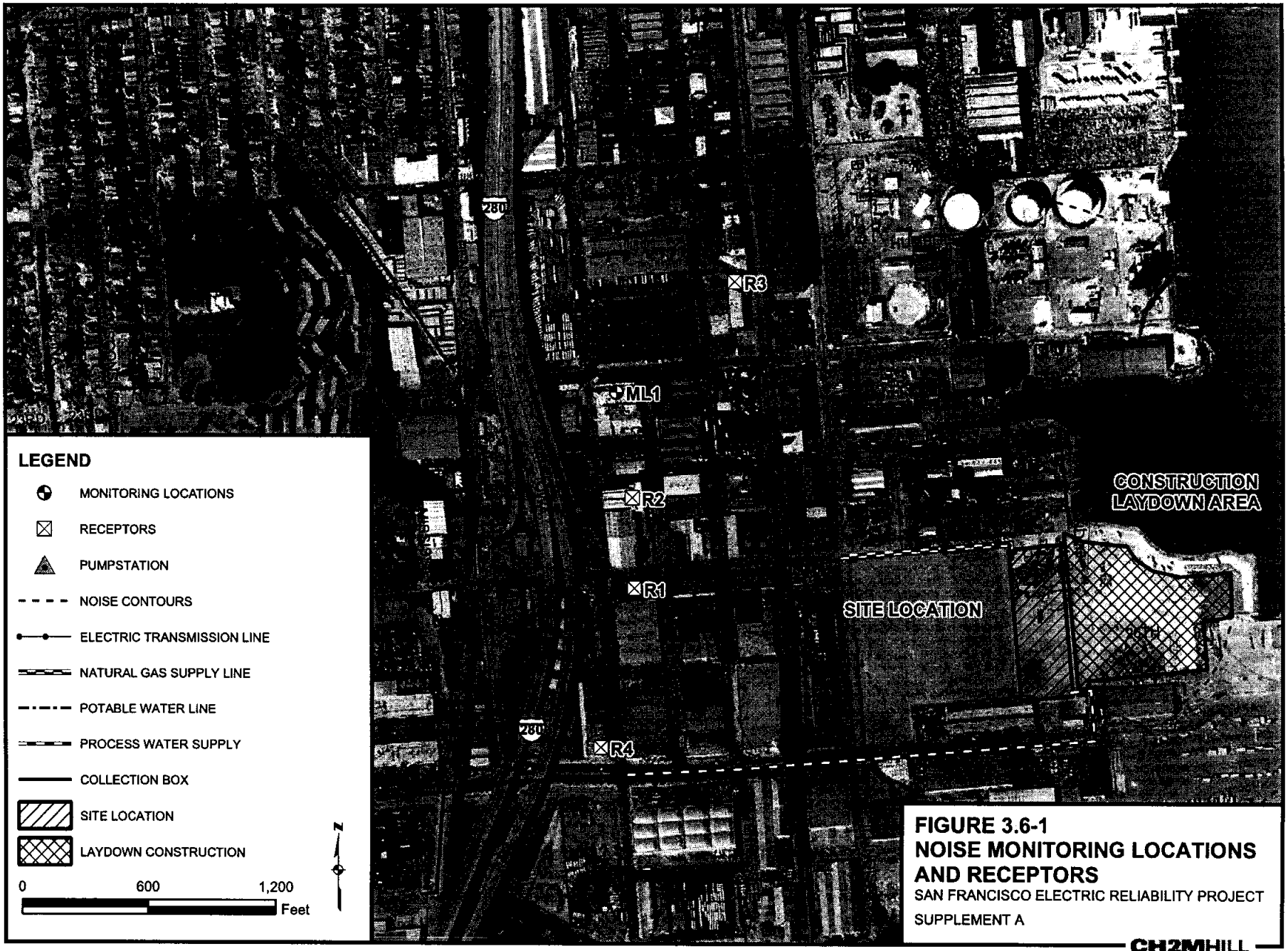


FIGURE 3.6-1
NOISE MONITORING LOCATIONS AND RECEPTORS
SAN FRANCISCO ELECTRIC RELIABILITY PROJECT
SUPPLEMENT A

CH2MHILL

\\LOK\PROJECTS\RDDGIS\SFPUC\MXDS\FIGURE_3_6-1_MONITORING.MXD 6/6/2005 16:19:59

Energy Resources Conservation
and Development Commission

Application for Certification for the SAN FRANCISCO ELECTRIC RELIABILITY PROJECT (SFERP)	)))	Docket No. 04-AFC-1

PROOF OF SERVICE

I, Kiana Davis, declare that on June 9, 2005, I deposited copies of the attached **DATA RESPONSE, SET 3, CARE 3.1 THROUGH 3.7** in the United States mail in San Francisco, California, with first-class postage thereon fully prepaid and addressed to all parties on the attached service list.

I declare under the penalty of perjury that the foregoing is true and correct.

Kiana V. Davis

Kiana Davis

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